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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,767	11/30/2000	Eduard Gast	15268.1	7760

22913 7590 01/16/2004

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EXAMINER

FELTON, AILEEN BAKER

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/646,767	Applicant(s) GAST ET AL.	
	Examiner Aileen B Felton	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-22 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. The claims regarding the catalyst are currently objected to or allowed. Claim 7 is now rejoined because of the indication of the allowable generic claim regarding the species of the catalyst.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al(6,149,745) in view of Yoshida et al(5,827,996).

Matsuda et al discloses a gas generating composition for use in air bags that can comprise 5-60 % of nitroguanidine, 25-90 % of oxidizer, and 3-30 % of zirconium oxide(col. 3, lines 1-9). The oxidizer can comprise a mixture of strontium nitrate and iron oxide. The composition can also comprise a binder that is a sodium salt of carboxymethylcellulose. Example 11 shows the binder in the amount from 3-10 % (col. 4, line 4) and other examples show the use of 0 % binder. The use of platinum as a catalyst, the surface area of the titanium oxide, and the particular amounts of the oxidizers are not disclosed.

Yoshida et al teaches the use of metal oxide with a surface area of at least 40 m²/g. The metal oxide can be titanium oxide.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of strontium nitrate and iron oxide within the range disclosed by Matsuda since Matsuda discloses that the oxidizers can be used as a mixture of two or more kinds(col. 2, lines 48-49). It would also have been obvious to vary the amount of the binder. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). It would have been obvious to use the titanium dioxide taught by Yoshida et al with the composition of Matsuda since Yoshida suggests that it will function to reduce the concentrations of CO and NO_x and this is the purpose of the titanium oxide fiber disclosed in Matsuda.

4. Claims 1-4 and 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamato(6,190,474) in view of Yoshida et al(5,827,996).

Yamato discloses a gas generating composition for use in an air bag that comprises a mixture of oxidizers from about 20-80 %, a fuel such as nitroguanidine from 20-80 %, and a binder such as microcrystalline cellulose from 5 % or less. The oxidizer mixture can comprise strontium nitrate and iron oxide. The use of platinum as a catalyst, the use of titanium oxide, and the particular amounts of the oxidizers are not disclosed.

Yoshida et al teaches the use of metal oxide with a surface area of at least 40 m²/g. The metal oxide can be titanium oxide.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of strontium nitrate and iron oxide within the range disclosed by Yamato since Yamato discloses that the oxidizers can be used as a mixture of two or more kinds(col. 2, lines 48-49). It would also have been obvious to vary the amount of the binder. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). It would have been obvious to use the titanium dioxide taught by Yoshida et al with the composition of Yamato since Yoshida suggests that it will function to reduce the concentrations of CO and NO_x. Since combustion of the similar composition of Yamato will result in slag formation it would be a benefit to use the titanium oxide teaching to reduce the formation of harmful CO and NO_x.

Response to Arguments

5. Applicant's arguments regarding the Niles reference are persuasive and accordingly the rejection of those claims with the catalyst have been withdrawn.

Applicant's arguments are not persuasive regarding the combination of Matsuda and Yoshida. Applicant first argues that Matsuda teaches away from a particulate slag trap. First, applicant's claims do not require a particle, the claims only require a certain surface area. Second, even though Matsuda teaches that a particulate slag trap may result in a reduced scavenging effect, the reference nonetheless teaches that it is

known in the art to use particulate slag traps. One of skill in the art may choose to follow this teaching even though it may result in a reduced scavenging effect.

Regarding Applicant's arguments that Matsuda and Yoshida do not indicate that the fibers and titanium oxide are slag traps, regardless of what the particular reference calls these components, the fibers or particles are still present in the compositions. Applicant cannot remove the effects of these components merely by calling them by another name. The Yoshida reference teaches the use of titanium dioxide with a particular surface area, since this component is known to be used in gas generating compositions it would be obvious to use it with Matsuda since it does serve as a trap for CO and NO_x and will likely trap other byproducts of the combustion of the gas generating composition. Again, since it is the same component it will have the same capabilities regarding slag. Applicant also asserts that the titanium oxide is not chemically inert, the examiner fails to see how Applicant has modified this component to make it any different from any other titanium oxide. Thus, the titanium oxide meets the claim limitations by its mere presence in the composition.

Applicant further argues that *In re Shetty* provides a basis for the exclusion of rejections based on inherency for a 35 U.S.C. 103 rejection. Upon review of this case, the examiner disagrees with the Applicant's conclusion. *In re Shetty* involved process claims in which a method step was an amount effective of a particular ingredient to obtain appetite suppression. This is not the issue in this case with composition claims since if the ingredient is in the composition it will have that effect. The examiner fails to see how the Applicant has changed titanium oxide to make it inert for his purposes.

Again, regardless of what Applicant wants to call this component, Applicant cannot remove its normal characteristics.

Applicant's have argued that Matsuda does not disclose that the fibers are used for slag forming. Yoshida provides a teaching for the use of the titanium oxide with the composition of Matsuda and it would be obvious to use the titanium oxide with Matsuda with or without the use of the fibers disclosed by Matsuda. The titanium oxide will provide benefits to the composition, which is described fully in the rejection.

Applicant provides similar arguments (see arguments above to Matsuda for further clarification) for the rejection using Yamato in view of Yoshida. The teaching and reason for obviousness is that Yoshida teaches the use of the titanium oxide with a gas generating composition. Thus, the addition of the titanium will provide a benefit to the composition of Yamato even if, for arguments sake, this is not the same benefit addressed by the Applicant. Again, the Applicant appears to argue that he has somehow changed titanium oxide to make it work differently than it does for everyone else. The examiner disagrees that the titanium oxide of Yoshida will act any differently than the one claimed in the instant invention. Regardless of what the titanium oxide is called, there is a sufficient teaching to use it in other air bag compositions. Applicant cannot remove the effects of these components merely by calling them by another name.

Allowable Subject Matter

6. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claim 23 is allowed.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

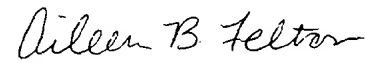
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen Felton whose telephone number is (703) 306-5751. The examiner can normally be reached on Monday through Friday from 6:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

A handwritten signature in cursive script that reads "Aileen B. Felton".

Aileen B. Felton